

H11014

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Hydrographic/
Type of Survey Side Scan Sonar / Multibeam
Field No. Sheet "A"
Registry No. H11014

LOCALITY

State New Hampshire
General Locality New England Coast
Locality Portsmouth Harbor

2000-2001

CHIEF OF PARTY
CDR Steven R. Barnum

LIBRARY & ARCHIVES

DATE _____

NOAA FORM 77-28
U.S. DEPARTMENT OF COMMERCE
(11-72)
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

HYDROGRAPHIC TITLE SHEET

H11014

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State: **New Hampshire**

General Locality: **New England Coast**

Sub-Locality: **Portsmouth Harbor**

Scale: **1:10,000** Date of Survey: **11/1/00 to 11/8/00**
09/23/01 to 09/28/01

Instructions Dated: **09/21/01** Project Number: **S-A910-WH**

Vessel: **NOAA Ship WHITING, S-329**

Chief of Party: **Commander Steven R. Barnum, NOAA**

Surveyed by: **WHITING Personnel**

Soundings by: **Odom Echotrac DF3200 MK II Echosounder**
Reson SeaBat 8101 multibeam sonar

Graphic record scaled by: **WHITING Personnel**

Graphic record checked by: **WHITING Personnel**
Hewlett Packard Design Jet 2500CP (office)

Protracted by: **N/A** Automated Plot: **HP-750C (Field)**

Verification by: **Atlantic Hydrographic Branch Personnel**

Soundings in: ~~Meters~~ **Feet** at MLLW

Remark: ***Bold Italic Red notes in Descriptive Report were made during office processing.***

- 1) All Times are UTC.***
- 2) This is a basic Hydrographic Survey.***
- 3) Projection is UTM Zone 19.***

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DESCRIPTIVE REPORT

to accompany
HYDROGRAPHIC SURVEY H11014

Scale of Survey: 1:10,000
Year of Survey: 2001
NOAA Ship WHITING
CDR Steven R. Barnum, Commanding

A. AREA SURVEYED

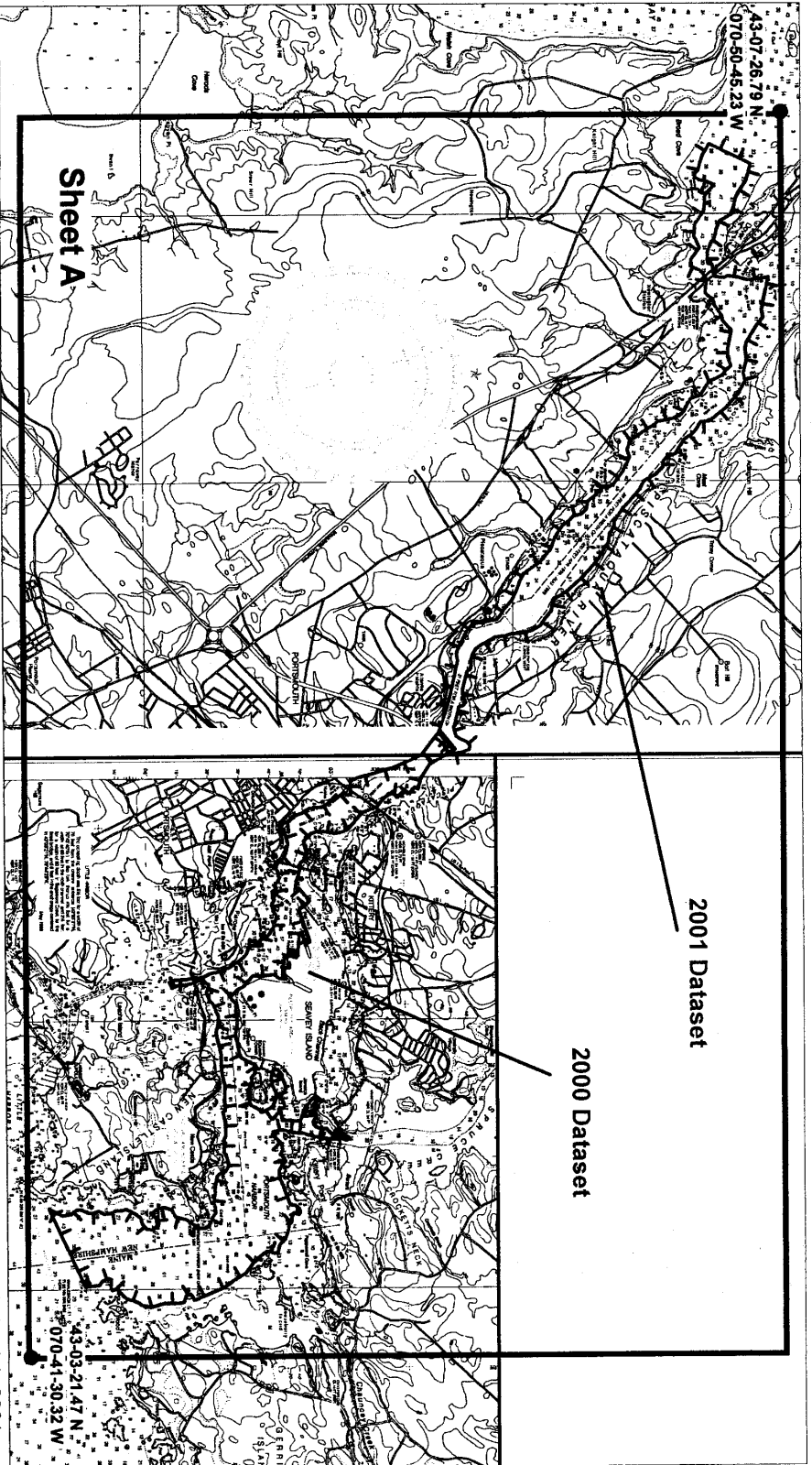
This hydrographic survey was conducted in accordance with Hydrographic Survey Letter Instructions for project S-A910-WH, Portsmouth Harbor, New Hampshire. The original letter instructions were dated October 20, 2000. Letter instructions for the 2001 field season were subsequently received, dated September 21, 2001. Between the two letter instruction, changes were made to the tidal parameters and assigned survey registry and sheet limits. No changes were made to the latest letter instructions.

This Descriptive Report pertains to sheet "A" of project S-A910-WH, which includes Portsmouth Harbor. The assigned registry number for this sheet, as prescribed in the Letter Instructions is H11014.

H11014 is a multi-year survey. Operations in the first survey area began on November 1, 2000 and ended November 8, 2000. This survey encompassed the mouth of Portsmouth Harbor off of Whaleback Light, up the Piscataqua River, and just past the Interstate 95 bridge. Throughout this report, this area will be referred to as the "2000 Dataset".

Data acquisition on the second survey area began on September 23, 2001, and ended September 28, 2001. It overlaps the 2000 dataset near the Interstate 95 bridge, continues up the Piscataqua River, and ends just past Dover Point near Broad Cove. This area of the survey will be referred to as the "2001 Dataset".

For the purpose of this report, both datasets are combined to form one survey. Complete survey limits, including the boundaries of each year's dataset, are provided on the following page.



Chartlet 1 of 1
 H11014 dataset layout and sheet limits
 Chart 13283, 18th Edition, November 4th, 2000
 Chart 13285, 10th Edition, November 4th, 2000

This chartlet may be up to date with the July 2001
 Local Notice to Mariners information.
NOT FOR NAVIGATION.



**NATIONAL OCEANIC AND
 ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE**

Project: S-A910-WH
 Survey: H11014
 State: New Hampshire
 Locality: New England Coast
 Sub-locality: Portsmouth Harbor
 Survey Scale: 1:10,000

Sounding Units: Feet
 Sounding Datum: MLLW
 Horizontal Datum: NAD 83
 Projection: UTM 19
 Central Meridian: 069° 00' 00"
 Scale Factor: 0.9996

NOAA Ship WHITING
CDR Steven R. Barnum
Commanding
 November 1 - 8, 2000
 September 23 - 28, 2001

B. DATA ACQUISITION AND PROCESSING *See also the Evaluation report*

EQUIPMENT

Data were acquired by NOAA Launch 1005 and Launch 1014. Both launches are NOAA's standard 8.5-meter aluminum Jensen vessel with a typical 0.5-meter transducer draft. For the 2000 Dataset, a third vessel, a 24 ft Boston Whaler, was borrowed from the University of New Hampshire, and was solely used to acquire sound velocity data using SeaBird SeaCat CTD instruments. Offsets and vessel configuration files (VCF) were not needed, nor recorded, for this vessel.

Launch 1005 acquired vertical beam echosounder (VBES)¹ and shallow-water multibeam (SWMB) data. An Odom Echotrac DF3200 MK II echosounder was used for VBES hydrography, and a Reson SeaBat 8101 multibeam system was used for SWMB hydrography. All positioning and attitude were determined with a TSS POS/MV 320 (version 2) GPS-aided inertial navigation system.

Launch 1014 acquired VBES and SSS data. The Klein 5500 sonar was hull mounted during data acquisition, and an Odom Echotrac DF3200 MK II echosounder was used for VBES hydrography. Positioning was determined with a Trimble DSM212L integrated differential GPS receiver. Attitude data were acquired using a TSS DMS-05 attitude sensor.

No unusual vessel configurations or problems were encountered. Refer to the Data Acquisition and Processing Report (DAPR) * for detailed equipment and vessel configuration information. * *Data filed with original field records.*

QUALITY CONTROL

Side Scan Sonar Quality Control

Daily confidence checks were made by observing the outer ranges of the side scan sonar images. A good check consisted of distinguishing contacts or sand waves across the entire range of the side scan trace. No unusual problems were encountered.

¹ Launch 1005 VBES data were not processed when SWMB data were acquired. Since this survey achieved 100% SWMB coverage, Launch 1014 VBES data were not processed as well, except for DN 2001-266 when Launch 1014 VBES data was used for crossline comparisons.

Shallow Water Multibeam Quality Control

There were no faults with the SWMB system which affected data integrity. Refer to this project's DAPR * for detailed discussion of SWMB system calibrations, data acquisition, and data processing.

Crosslines

2000 Dataset

SWMB crossline data were acquired on DN 311, and consisted of twenty-eight lines laid out perpendicular to the 100% SWMB lines. All data were analyzed in a **CARIS/HIPS** workfile (see project DAPR). * Crossline data agreed with 95% to 100% of the mainscheme data, based on the International Hydrographic Organization (IHO) statistical standards used in the **CARIS** Quality Control Report (see Separate V). *

2001 Dataset

On DN 266, seventeen VBES crossline data were acquired on Launch 1014 totaling 3.0 nm. 100% SWMB data and VBES crossline data were analyzed in a **CARIS/HIPS** workfile (see project DAPR). * Crossline data agreed with 95% to 100% of the mainscheme data, based on the International Hydrographic Organization (IHO) statistical standards used in the **CARIS** Quality Control Report (see Separate V). *

Junctions *See also Evaluation report*

2000/2001 Junction

The two datasets for this survey join immediately west of Interstate 95 bridge (see page 3). The soundings from the two datasets agree with less than 5% variance.

H11014/ H10763 Junction

Hydrographic survey H10763 was conducted by NOAA Ship RUDE in 1997. That survey overlaps the current survey from the mouth of Portsmouth Harbor up to Salamander Point. The soundings from the two datasets agree with less than 5% variance.

CORRECTIONS TO ECHO SOUNDING

All methods or instruments used were as described in the project DAPR. * A table detailing all sound velocity casts is located in Separate III. *

**** Data filed with original field records.***

C. VERTICAL AND HORIZONTAL CONTROL

VERTICAL CONTROL

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating tide station at Portland, ME (841-8150) served as control for datum determination. Tertiary gauges at Seavey Island (841-9870) and Schiller Generating Plant (842-3351) provided ancillary tide data.

Tidal zoning for this survey was altered from the Letter Instructions to provide a mixed file for both 2000 and 2001 datasets based on the tidal datum from Seavey Island (received from N/OPS1, Cary Wong, December 2001). The zone used for this survey are as follows:

STATION	CORRECTOR (min)	RATIO	REFERENCE
PIS1	-12	x1.06	841-9870
PIS2	-12	x1.05	841-9870
PIS5	-6	x1.04	841-9870
PIS8	-6	x1.02	841-9870
PIS9	0	x1.00	841-9870
PIS10	0	x0.98	841-9870
PIS13	+6	x0.96	841-9870
PIS14	+12	x0.93	841-9870
PIS15	+18	x0.91	841-9870
PIS17	+30	x0.89	841-9870
PIS18	+36	x0.86	841-9870
PIS19	+48	x0.84	841-9870
PIS20	+60	x0.82	841-9870
PIS25	+72	x0.81	841-9870
PIS26	+78	x0.79	841-9870

For the 2000 Dataset, a Request for Approved Tides letter was sent to N/OPS1 by LT Shep Smith from UNH (no copy of the transmittal is available), and for the 2001 Dataset, a Request for Approved Tides letter was sent to N/OPS1 on October 3, 2001 (Appendix IV)*. Seavey Island, ME (841-9870) verified tidal data were acquired from N/OPS1 CO-OPS on December 20, 2001 and applied to all sounding data on March 5, 2002 using Caris HIPS v5.2. *Approved tides and zones were reapplied to survey in Caris during office processing.*
** Data filed with original field records.*

HORIZONTAL CONTROL *See also the Evaluation report*

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 19.

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The primary and only DGPS beacon used for this survey was Portsmouth, New Hampshire. No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored daily on both launches. That value did not exceed 4.00, and adequate satellite coverage was maintained throughout the survey period.

D. RESULTS AND RECOMMENDATIONS

CHART COMPARISON *See also the Evaluation report*

There are two charts affected by this survey:

13283, 18th edition, November 4, 2000, scale 1:20,000 *(1:10,000 inset)*
13285, 10th edition, November 4, 2000, scale 1:20,000

General Agreement with Charted soundings

Sounding data agreed well with charted depths. Discrete differences are addressed in the “AWOIS Item Investigations”, “Dangers to Navigation” and “Charted Features” sections.

AWOIS Item Investigations

There were thirteen AWOIS items within the survey limits. The following section addresses these items.

AWOIS: 10,752

Item Description: 26ft granite rock in the middle of the channel

Source: BP75054

Item Position: Lat. 43° 05' 09" N, Long. 070° 45' 41" W

Required Investigation: SWMB, S2, DI, SD **Radius:** 100

Charts Affected: 13285, **13283**

INVESTIGATION

Contact No: N/A

Date(s): 2000: DN 308, 309, 312

Least Depth Position Number: DN 2000-308, Line 329_1452, Ping 3258, Beam 36

Investigation Used: 300% SSS, 100% SWMB

Surveyed Position: Lat. 43° 05' 09.70" N, Long. 070° 45' 40.02" W

Position Determined By: Differential GPS

Investigation Summary: 200% side scan sonar coverage and 100% SWMB coverage was acquired over the entire 100 meter search radius of AWOIS 10,752. A sounding was acquired with a least depth of 27 ft (8.35 m), corrected with verified tides, in position Lat. 43° 05' 09.70" N, Long. 070° 45' 40.02" W bearing approximately 030° true and 30 m from the AWOIS position. Based on a review of the data, the item is a rise on the bottom, but not a discreet rock or obstruction.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends that a sounding with a least depth of 27 ft be positioned at Lat. 43° 05' 09.70" N, Long. 070° 45' 40.02" W.

Do not concur. The AWOIS item is described as a granite rock.

Add 27 Rk with danger curve.

AWOIS: 10,754

Item Description: Charted submerged schooner

Source: H8090

Item Position: Lat. 43° 04' ~~52.8~~ **53.12**" N, Long. 070° 43' ~~09~~ **07.19**" W

Required Investigation: SWMB, S2, DI, SD **Radius:** 100

Charts Affected: 13283

INVESTIGATION

Contact No: 2000-310_330_1503_1

Date(s): 2000: DN 310

Least Depth Position Number: N/A

Investigation Used: 100% SSS, VBES

Surveyed Position: Lat. 43° 04' 53.57" N, Long. 070° 43' 05.85 " W

Position Determined By: Differential GPS

Investigation Summary: 100% side scan sonar coverage and VBES coverage was acquired within the navigable area of the 100 meter search radius of AWOIS 10,754. A SSS contact indicating the presence of a wreck was seen located near the shoreline in position Lat. 43° 04' 53.57" N, Long. 070° 43' 05.85" W bearing approximately 060° true and 33 m from the AWOIS position. SWMB coverage over the area was not feasible due to the shallowness of the area.

CHARTING RECOMMENDATION

Recommendations: The hydrographer does not recommend any changes to the charted wreck in position Lat. 43° 04' 52.8" N, Long. 070° 43' 09" W.

Concur . *Retain wreck as charted.*

AWOIS: 10,756

Item Description: 19 ft sounding near Portsmouth Harbor entrance

Source: H8090

Item Position: Lat. 43° 04' 12" N, Long. 070° 41' 59" W

Required Investigation: SWMB, S2, DI Radius: 100

Charts Affected: 13283

INVESTIGATION

Contact No: 2000-308_101_1756_12, 2000-310_200_1549_8, 2008-308_100_1810_3

Date(s): 2000: DN 308, 310, 311

Least Depth Position Number: DN 2000_311, Line 132_1759, Ping 610, Beam 11

Investigation Used: 300% SSS, 100% SWMB

Surveyed Position: Lat. 43° 04' 13.15 " N, Long. 070° 41' 59.49 " W

Position Determined By: Differential GPS

Investigation Summary: 300% side scan sonar and 100% SWMB coverage was acquired over the entire 100 m search radius of AWOIS 10,756. Three contacts representing the same feature were selected in a generally rocky bottom, and developed using SWMB. A sounding was acquired with a least depth of ~~19~~ **18** ft (5.8~~1~~ **.63** m), corrected with verified tides, in position Lat. 43° 04' 13.15 " N, Long. 070° 41' 59.49 " W, and corresponds with contact 2000-308_101_1756_12, which is bearing approximately 350° true and 37 m from the AWOIS position.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends that the charted 19 ft depth in location Lat. 43° 04' 12" N, Long. 070° 41' 59" W be deleted, and chart a ~~19~~ **18** ft depth in position Lat. 43° 04' 13.15" N, Long. 070° 41' 59.49" W.

Concur

AWOIS: 10,757

Item Description: An 11 ft sounding, later thought to be 14 ft, near the harbor entrance.

Source: H8090

Item Position: Lat. 43° 03' 47.12" N, Long. 070° 42' 02.39" W

Required Investigation: SWMB, S2, DI Radius: 50

Charts Affected: 13283

INVESTIGATION

Contact No: 2000-309_300_1809_2, 2000-308_101_1756_27

Date(s): 2000: DN 308,309, 311

Least Depth Position Number: DN 2000-301, Line 132_1759, Ping 2364, Beam 92

Investigation Used: 300% SSS, 100% SWMB

Surveyed Position: Lat. 43° 03' 46.57" N, Long. 070° 42' 02.67" W

Position Determined By: Differential GPS

Investigation Summary: 300% side scan sonar and 100% SWMB coverage was acquired over the entire the 50 m search radius of AWOIS 10,757. Two contacts representing the same rocky feature were selected and developed using SWMB. A sounding was acquired with a least depth of 12 ft (3.83 **.63** m), corrected with verified tides, in position Lat. 43° 03' 46.57" N, Long. 070° 42' 02.67" W, which corresponds with contact 2000-309_300_1809_2 bearing approximately 190° true and 20 m from the AWOIS position.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends that the charted 11 ft depth in location Lat. 43° 03' 47.12" N, Long. 070° 42' 02.39" W be deleted, and chart a 12 ft depth at location Lat. 43° 03' 46.57" N, Long. 070° 42' 02.67" W.

Concur.

AWOIS: 10,758

Item Description: 18 ft Cod Rock north of Fort Constitution

Source: H8090

Item Position: Lat. 43° 04' 23.72" N, Long. 070° 42' 38.39" W

Required Investigation: SWMB, S2, DI Radius: 100

Charts Affected: 13283

INVESTIGATION

Contact No: 2000-308_116_1908_4, 2000-309_218_1556_2

Date(s): 2000: DN 307, 308, 309

Least Depth Position Number: DN 2000-307, Line 240_1940, Ping 853, Beam 32

Investigation Used: 300% SSS, 100% SWMB

Surveyed Position: Lat. 43° 04' 24.28 **27"** N, Long. 070° 42' 37.90" W

Position Determined By: Differential GPS

Investigation Summary: 300% side scan sonar and 100% SWMB coverage was acquired over the entire 100 m search radius of AWOIS 10,758. Two contacts were selected on this very obvious object and developed using SWMB. A sounding was acquired with a least depth of ~~19~~ **17** ft (5.84 **39** m), corrected with verified tides, in position Lat. 43° 04' 24.28 **27"** N, Long. 070° 42' 37.90" W.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends that the charted 18 ft **depth rock** in location Lat. 43° 04' 23.72" N, Long. 070° 42' 38.39" W be deleted, and chart a ~~19~~ **17** ft depth at location Lat. 43° 04' 24.28 **27"** N, Long. 070° 42' 37.90" W.

Concur with clarification. Chart 17 Cod Rk

AWOIS: 10,759

Item Description: Charted pile

Source: H8090

Item Position: Lat. 43° 04' 21" N, Long. 070° 42' 44" W

Required Investigation: VI, SWMB, S2, DI Radius: 50

Charts Affected: 13283

INVESTIGATION

Contact No: N/A

Date(s): 2000: DN 307, 308, 309

Least Depth Position Number: N/A

Investigation Used: 300% SSS, 100% SWMB

Surveyed Position: N/A

Position Determined By: Differential GPS

Investigation Summary: 300% side scan sonar and 100% SWMB coverage was acquired within the 50 m search radius of AWOIS 10,759. No contacts were found.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends deleting the pile located at Lat. 43° 04' 21" N, Long. 070° 42' 44" W, and charting the surveyed soundings.

Concur. Delete pile symbol and notation

AWOIS: 10,760

Item Description: A subsurface pipe marked by an orange and yellow ball float.

Source: LNM 39/38 **98**

Item Position: Lat. 43° 04' 30.0" N, Long. 070° 44' 18.0" W

Required Investigation: SWMB, S2, DI, SD Radius: 100

Charts Affected: 13283

INVESTIGATION

Contact No: 2000-308/126_1457_2, 2000-308/126_1457_9, 2000-309/225_1411_3, 2000-309/225_1411_4, 2000-310/335_1322_6, 2000-310/335_1322_7

Date(s): 2000: DN 308, 309, 310

Least Depth Position Number: N/A

Investigation Used: 300% SSS, 100% SWMB

Surveyed Position: N/A

Position Determined By: Differential GPS

Investigation Summary: 300% side scan sonar and 100% SWMB coverage was acquired over the entire 100 m search radius of AWOIS 10,760. Six discreet contacts representing a rocky bottom were found and developed. No submerged pipes, nor any other obstructions, were found.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommend deleting the obstruction **PA** located at Lat. 43° 04' 30.0" N, Long. 070° 44' 18.0" W, and charting the surveyed soundings.

Concur. Delete Obsn PA and danger curve.

AWOIS: 10,761

Item Description: Charted 12ft sounding reportedly disproved by the USS Memphis

Source: LNM 31/97 and CL 331/97

Item Position: Lat. 43° 04' 27.5" N, Long. 070° 44' 09.0" W

Required Investigation: SWMB, S2 **Radius:** 50

Charts Affected: 13283

INVESTIGATION

Contact No: N/A

Date(s): 2000: DN 308, 309, 312

Least Depth Position Number: N/A

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position: Lat. 43° 04' 27.5" N, Long. 070° 44' 09.0" W

Position Determined By: Differential GPS

Investigation Summary: 300% side scan sonar and 100% SWMB coverage was acquired over the entire 50 m search radius of AWOIS 10,761. No contacts were found. The closest least depth within the AWOIS radius is a ~~15~~ **13** ft (~~4.5~~ **4.0** m) sounding close to shore, bearing 345° true, 30 m from the item.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommend charting the surveyed soundings.

Concur . The 12 ft sounding is not presently charted.

AWOIS: 10,763

Item Description: Sunken fishing vessel Anne El, with an approximate clearance of 53 ft.

Source: LNM 16/84

Item Position: Lat. 43° 05' 10" N, Long. 070° 45' 44" W

Required Investigation: SWMB, S2, DI, SD **Radius:** 100

Charts Affected: 13285, **13283**

INVESTIGATION

Contact No: 2000-308_236_2044_1, 2000_310_351_1420_1

Date(s): 2000: DN 308, 310, 312

Least Depth Position Number: DN 2000-312, Line 910_1347, Ping 172, Beam 11

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position: Lat. 43° 05' 09.84 " N, Long. 070° 45' 44.56 " W

Position Determined By: Differential GPS

Investigation Summary: 200% side scan sonar and 100% SWMB coverage was acquired over the entire 100 m search radius of AWOIS 10,763. Two contacts depicting wreckage were selected and developed using SWMB. A sounding was acquired with a least depth of 30 ft (9.14 m), corrected with verified tides, in position Lat. 43° 05' 09.84 " N, Long. 070° 45' 44.56 " W, bearing approximately 230° true, 12 m from the AWOIS item. Due to time constraints and strong currents in the area, dive investigations were not conducted to verify the object.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends charting a non-dangerous wreck in position Lat. 43° 05' 09.84 " N, Long. 070° 45' 44.56 " W, with a least depth of 30 feet. ***Concur with clarification. Chart 30 Wk with danger curve. See also AWOIS # 10764.***

AWOIS: 10,764

Item Description: 30 ft sounding on a sunken locomotive engine tender car

Source: BP75054

Item Position: Lat. 43° 05' 09" N, Long. 070° 45' 43" W

Required Investigation: SWMB, S2, DI, SD **Radius:** 100

Charts Affected: 13283

INVESTIGATION

Contact No: 2000-308_236_2044_1, 2000_310_351_1420_1

Date(s): 2000: DN 308, 310, 312

Least Depth Position Number: DN 2000-312, Line 910_1347, Ping 172, Beam 11

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position: Lat. 43° 05' 09.84" N, Long. 070° 45' 44.56" W

Position Determined By: Differential GPS

Investigation Summary: 200% side scan sonar and 100% SWMB coverage was acquired within the 100 m search radius of AWOIS 10,763. Two contacts depicting wreckage were selected and developed using SWMB. A sounding was acquired with a least depth of 30 ft (9.14 m), corrected with verified tides, in position Lat. 43° 05' 09.84" N, Long. 070° 45' 44.56 " W bearing approximately 315° true, 42 m from the AWOIS item. According to local pilots, the train wreckage was moved next to the fishing vessel Anne El (AWOIS 10,763). Due to time constraints and strong currents in the area, dive investigations were not conducted to verify the object.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends charting a non-dangerous wreck in position Lat. 43° 05' 09.84" N, Long. 070° 45' 44.56 " W, with a least depth of 30 feet.

Do not concur. Delete 30 ft. sounding.

See AWOIS # 10763 for charting recommendation of wreck.

AWOIS: 11,069

Item Description: Sunken barge with a reported depth of 21 ft.

Source: NM 2/70

Item Position: Lat. 43° 07' 15.81" N, Long. 070° 49' 25.20" W

Required Investigation: S2, SWMB, ES, DI **Radius:** 250

Charts Affected: 13285

INVESTIGATION

Contact No: 2001-266_209_1723_2, 2001-266_104_1309_1, 2001-266_208_1716_5

Date(s): 2001: DN 266, 270

Least Depth Position Number: DN 2001-270, Line 909A1816, Ping 366, Beam 18

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position: Lat. 43° 07' 16.53" N, Long. 070° 49' 25.56" W

Position Determined By: Differential GPS

Investigation Summary: 200% side scan sonar and 100% SWMB coverage was acquired over the entire 100 m search radius of AWOIS 10,763. A single wreck represented by three contacts was selected and developed using SWMB. A sounding was acquired with a least depth of 24 **23** ft (7.26 m), corrected with verified tides, in position Lat. 43° 07' 16.53" N, Long. 070° 49' 25.56" W bearing approximately 340° true, 24 m from the AWOIS item.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends deleting the charted *dangerous* wreck with a reported depth of 21 ft in position Lat. 43° 07' 15.81" N, Long. 070° 49' 25.20" W, and charting a non-dangerous wreck with a least depth of 24 **23** ft in position Lat. 43° 07' 16.53" N, Long. 070° 49' 25.56" W.

Concur with clarification.

Delete dangerous Wk symbol and notation (21 ft rep).

Add 23 Wk with danger curve

AWOIS: 11,071

Item Description: A submerged obstruction with a least depth of 27 ft.

Source: LNM 22/98

Item Position: Lat. 43° 06' 24.1" N, Long. 070° 47' 34.6" W

Required Investigation: S2, SWMB Radius: 50

Charts Affected: 13285

INVESTIGATION

Contact No: 2001-266_213_1822_2

Date(s): 2000: DN 312; 2001: DN 266

Least Depth Position Number: DN 2000-312, Line 904_1323, Ping 265, Beam 84

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position: Lat. 43° 06' 24.38" N, Long. 070° 47' 34.18" W

Position Determined By: Differential GPS

Investigation Summary: 200% side scan sonar coverage and 100% SWMB coverage was acquired over the entire 100 meter search radius of AWOIS 11,071. A contact resembling a rocky feature was developed using SWMB. A sounding was acquired with a least depth of 27 ft (8.43-53 m), corrected with verified tides, in position Lat. 43° 06' 24.38" N, Long. 070° 47' 34.18" W.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends that no changes be made to the charted obstruction in location Lat. 43° 06' 24.1" N, Long. 070° 47' 34.6" W.

Do not concur.

***Revise charted 27 Obstn to present survey position in Lat. 43° 06' 24.38" N,
Long. 070° 47' 34.18" W.***

AWOIS: 11,072

Item Description: Charted dolphin

Source: Unknown

Item Position: Lat. 43° 06' 17.0" N, Long. 070° 47' 35.7" W

Required Investigation: VS, S2, SWMB Radius: 50

Charts Affected: 13285

INVESTIGATION

Contact No: 2001-266_109_1448_5

Date(s): 2001: DN 266, 270

2001-266_109_1448_5

Least Depth Position Number: DN 2001-270, Line ~~931_1733~~, Ping ~~322~~, Beam ~~78~~

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position: Lat. 43° 06' 17.79 **60**" N, Long. 070° 47' 35.63 **26**" W

Position Determined By: Differential GPS

Investigation Summary: 200% side scan sonar coverage and 100% SWMB coverage was acquired over the entire 50 meter search radius of AWOIS 11,072. There was no visible evidence of a dolphin in the area, although a large mooring buoy was positioned (DP 3751). One contact depicting either a rock or the mooring buoy block was selected and developed. A sounding was acquired with a least depth of ~~24~~ **24** ft (7.53 **71** m), corrected with verified tides, in position Lat. 43° 06' 17.79 **60**" N, Long. 070° 47' 35.63 **26**" W.

CHARTING RECOMMENDATION

Recommendations: The hydrographer recommends removing the dolphin symbol in position Lat. 43° 06' 17.0 " N, Long. 070° 47' 35.7 " W.

Concur. Delete charted Dol notation and symbol.

Dangers to Navigation *See also the Evaluation Report*

A total of twenty-one Dangers to Navigation (Dton) were reported by the Hydrographer to N/CS33 (AHB). For the complete Dton report (sent October 26, 2001), see Appendix I. *The final forwarded report is attached to the Evaluation report.* The following table is a list of these Dton's with reference to their source data. SWMB data is referenced by its CARIS file (project/vessel/DN/line/ping/ beam).

DTON #	LD (FEET)	LEAST DEPTH LATITUDE	LEAST DEPTH LONGITUDE	CARIS SOURCE DATA (P/V/Y-D/L/P/B)	DESCRIPTION
1	16 15	43-07-04.96 N	070-50-11.98 W	H11014_MB/05mb/2001-270/905_1845/166/30	Rock **
2 *	19 18	43-07-03.86 N	070-50-01.9 W	H11014_MB/05mb/2001-270/906_184/279/13	Rock <i>Revise to 18 Rk</i>
3	16 15	43-07-07.37 N	070-49-57.14 W	H11014_MB/05mb/2001-271/803_1322/325 /10	Rock **
4	16	43-07-08.53 N	070-49-59.66 W	H11014_MB/05mb/2001-271/803_1322/499/41	Sounding Rock ** <i>(See E&A sec. D.8)</i>
5	12 11	43-07-00.00 N	070-49-43.26 W	H11014_MB/05mb/2001-271/804_1321/147/81	Rock **
6	13 12	43-07-03.58 N	070-49-44.27 W	H11014_MB/05mb/2001-270/912_1829/315/69	Rock **
7	24 23	43-07-02.86 N 03.27	070-49-34.29 W 33.69	H11014_MB/05mb/2001-266/589_1257/1978/83	Rock **
8	17 16	43-07-07.37 N	070-49-24.35 W	H11014_MB/05mb/2001-270/916_1814/346/2	Rock **
9 *	16 15	43-07-05.91 N	070-49-22.76 W	H11014_MB/05mb/2001-266/592_1458/339/28	Rock <i>Revise to 15 Rk</i>
10	15 14	43-07-08.65 N	070-49-11.66 W	H11014_MB/05mb/2001-269/595_1228/455/10	Rock **
11	30	43-07-10.65 N	070-49-11.47 W	H11014_MB/05mb/2001-266/592_1458/824/91	Rock **
12	12 14	43-07-11.04 N	070-48-50.23 W	H11014_MB/05mb/2001-269/554_1458/509/13	Rock ** <i>(See E&A sec. D.8)</i>
13	25 24	43-06-46.01 N 26	070-48-15.20 W 03	H11014_MB/05mb/2001-269/504_1503/1819/90	Sounding **
14	27 26	43-06-22.96 N 23.05	070-47-19.18 W 18.99	H11014_MB/05mb/2001-270/546_1420/1952/100	Rock ** <i>(See E&A sec. D.8)</i>
15 *	18 17	43-06-07.51 N	070-47-19.27 W	H11014_MB/05mb/2001-270/905_1845/166/30	Rock <i>Revise to 17 Rk</i>
16	17	43-06-03.37 N	070-46-53.19 W	H11014_MB/05mb/2001-270/566_1336/2724/77	Rock ** <i>(See E&A sec. D.8)</i>

17	27	43-05-09.70 N	070-45-40.02 W	H11014_MB/Wh05/2000 -308/329_1452/3258/36	Sounding Rock <i>(Same as AWOIS 10752)</i>
18	25	43-05-10.47 N	070-45-33.92 W	H11014_MB/Wh05/2000 -309/340_1345/128/17	Sounding **
19	24 20	43-04-50.35 N 42	070-45-12.34 W 05	H11014_MB/Wh05/2000 -309/286_1606/346/24 1	Sounding **
20 *	30	43-04-38.87 N	070-44-20.18 W	H11014_MB/Wh05/2000 -311/937_2029/995/15	Sounding
21	31 30	43-04-32.96 N 71	070-43-35.66 W 17	H11014_MB/Wh05/2000 -311/924_2019/32/78	Rock Add non-dangerous 30 Rk

* *DtoN sent to Marine Chart Division by AHB*

** *During office processing, these features were deemed not to be DtoN's. Chart survey soundings and "rky" notations as indicated.*

Charted Features

There are no wire drag items, or any other charted features, that need disproving on this survey. All other point features are addressed in the Item Investigations and Dangers to Navigation sections.

Concur

Charting Recommendations

From a navigational standpoint, the hydrographer recommends, and the local pilots have requested combining charts 13283 and 13285 so that the mariner can negotiate the Piscataqua River from the mouth of Portsmouth Harbor to Dover Point without having to change charts in mid-transit. Large draft vessels travel this entire route, which is segmented by many bridges and sharp bends. By having one chart, the mariner could focus on the full transit, and not be distracted by having to switch between charts. Currently vessels transit the river using British Admiralty Charts. **Defer to MCD for chart layout decisions.**

Furthermore, the hydrographer recommends discontinuing the use of degrees/minutes/seconds (D/M/S) for labeling the latitude and longitude on the chart edges, and instead use degree/decimal minutes. Most modern navigational equipment does not provide GPS positioning D/M/S. By forcing the mariner to convert their fixes for plotting purposes, we are actually introducing the possibility of navigational errors. **Defer to MCD for chart layout decisions.**

ADDITIONAL RESULTS *See also the Evaluation report*

Aids to Navigation and Other Detached Positions

All of the aids to navigation positioned during this survey are on location, with two exceptions: R “12” and R “12A” daymarks located on the south side of Seavey Island. The chart has these items positioned 40 meters to the west from their true location, which is at the end of a dock extension.

Defer to MCD Update Service Branch for charting recommendations.

All of the aids to navigation positioned during this survey are in the Light List, with the exception of two buoys near the marina off of Jamaica Island. Y “J” (Lat 43° 04' 46.06" N, Long. 070° 43' 19.59" W) is located southeast of Jamaica Island, and Y “K” (Lat. 43° 04' 40.75" N, Long. 070° 43' 21.34" W) is located northeast of Clarks Island. *Defer to MCD Update Service Branch for charting recommendations.*

Detached positions were also acquired on several structures including docks and piers within the Portsmouth area. Several piers and docks were positioned in the upper river above the Interstate 95 bridge. An ortho-photo was used to help collaborate detached position features with the chart. The only item that was not charted, but was positioned, was a small, steel dock ruin located 50 meters northwest of the interstate 95 bridge on the southern bank. *Concur.*

Chart pier ruins in Lat. 43° 05' 32.97" N, Long. 070° 46' 04.45" W, as scale permits.

Bridges and Overhead Cables

On November 15, 2001 Gene Popien, superintendent of the Department of Transportation (Portsmouth division) was contacted regarding the pertinent bridges in the area. He confirmed the following:

- Interstate 95 bridge: mean high water (MHW) vertical clearance is 135 ft.
- Sarah Mildred Long (Route 1 bypass) Lift Bridge: MHW vertical clearance down is 10ft, up is 135ft, and the railroad portion on the north end is 36 ft when up.
- Memorial (Route 1) Lift Bridge: MHW clearance is 21 ft when down, and 150ft when up.

Mr. Popien added that of all the bridges, only the Memorial Bridge is due for a major overhaul. The refurbishment is planned to begin in the next 4 or 5 years, but he could not confirm any proposed design changes to the vertical clearance.

Submarine Cables and Pipelines

There were no submarine cables or pipelines positioned during this survey, nor were any images of these items acquired on SSS. *Concur*

E. APPROVAL SHEET

**S-A910-WH
New England Coast
New Hampshire**

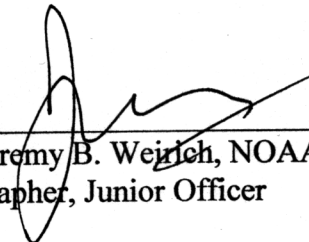
**Portsmouth Harbor
Survey Registry No. H11014**

Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy. All field sheets, this Descriptive Report, and all accompanying records and data are approved.

This survey is adequate to supersede all prior surveys in common areas, and for application to the relevant NOS nautical charts.


Respectfully,

Submitted:




LTJG Jeremy B. Weirich, NOAA
Hydrographer, Junior Officer

Approved and Forwarded:



LT Richard T. Brennan, NOAA
Field Operations Officer



CDR Steven R. Barnum, NOAA
Commanding Officer



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 19, 2000

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: S-A910-WH-2000
HYDROGRAPHIC SHEET: H-11014

LOCALITY: Portsmouth Harbor, NH
TIME PERIOD: November 2 - 7, 2000

TIDE STATION USED: 841-9870 Seavey Island, ME
Lat. 43° 4.8'N Lon. 70° 44.5'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.579 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: ATL196, PIS1, PIS2, PIS4, PIS5, PIS6,
PIS7, PIS8, PIS9, PIS10, PIS11, PIS12,
PIS13, PIS14 & PIS15.

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units
(meters), relative to MLLW and on Greenwich Mean Time.

Joseph M. Weller for Tom Mero

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



Printed on Recycled Paper





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: November 15, 2001

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-A910-WH-2001
HYDROGRAPHIC SHEET: H11014

LOCALITY: Portsmouth Harbor, NH
TIME PERIOD: Sept. 23 - 28, 2001

TIDE STATION USED: 841-9870 Seavey Island, ME
Lat. 43° 4.8'N Lon. 70° 44.5'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.579 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: PIS14, PIS15, PIS17, PIS18, PIS19,
PIS20, PIS25 & PIS26

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time.

For

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



LETTER TRANSMITTING DATA

DATA AS LISTED BELOW WERE FORWARDED TO YOU
BY (Check)

- ORDINARY MAIL AIR MAIL
 REGISTERED MAIL EXPRESS
 GBL (Give number) _____

DATE FORWARDED 12/03/2003

NUMBER OF PACKAGES 1

TO:

- NOAA / National Ocean Service
- Chief, Data Control Group, N/CS 3x1
- SSMC3, Station 6815
- 1315 East-West Hwy.
- Silver Spring, MD 20910-3282

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H11014

Portsmouth Harbor
Portsmouth, New Hampshire

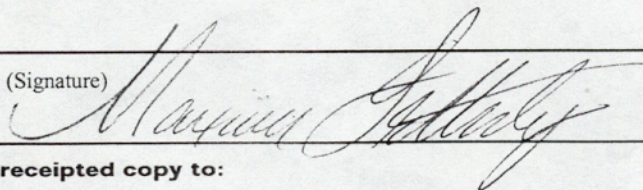
Descriptive Report
Evaluation Report
Record of Application to charts for Nos charts 13283 & 13285

1 Smooth Sheet

3 H-Drawings for NOS charts 13283 (+ inset) & 13285

ATTN: George Myers 301-713-2709

FROM: (Signature)



RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

- Maxine Fetterly
- Atlantic Hydrographic Branch
- 439 W. York St.
- Norfolk, VA 23510

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11014 (2000-01)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. AUTOMATED DATA ACQUISITION AND PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

Hydrographic Processing System
MicroStation J, version 07.01.04.16
I/RAS B, version 07.01.000.18
NADCON, version 2.10
MapInfo, version 6.5
CARIS HIPS/SIPS 2000 version 5.3
PYDRO, version 2.3.2

The smooth sheet was plotted using a Hewlett Packard DesignJet 2500CP plotter.

Junctions

H10763 (1997) to the south

A standard junction could not be effected between the present survey and H10763 (1997). The junctional survey is archived at NOS headquarters, Silver Spring, Maryland. Any adjustments to the depth curves in the junctional area will have to be made on the chart during compilation.

C. HORIZONTAL CONTROL

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values. The smooth sheet has been annotated with ticks showing the computed mean shift between the NAD 83 and the North American Datum of 1927 (NAD 27).

To place this survey on the NAD 27, move the projection lines 0.317 seconds (9.783 meters or 0.98 mm at the scale of the survey) north in latitude, and 1.806 seconds (40.843 meters or 4.08 mm at the scale of the survey) east in longitude.

D. Results and Recommendations

COMPARISON WITH CHARTS 13283 (18th Edition, Nov. 4/00)
13285 (10th Edition, Nov. 4/00)

Dangers To Navigation

One Danger to Navigation Report (DtON) containing twenty-one potential dangers, was submitted by the hydrographer to the Atlantic Hydrographic Branch (AHB), October 26, 2001. Upon office review, this list was revised to four dangers. The revised report was forwarded to the Marine Chart Division, Silver Spring, Maryland for inclusion in the Local Notice to Mariners. A copy of the DtON report is appended to this report.

Hydrography

The charted hydrography originates with the prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section D. of the Descriptive Report.

1. The following charted features located on chart 13283 were neither addressed nor adequately investigated by the field unit.

<u>Charted Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Dolphin	43°04'58.2"	70°43'06.8"
Pile	43°04'57.9"	70°43'06.3"

No change in charting status is recommended

2. A charted rock (rep 1993) with a depth of 3 feet, in Latitude 43°07'03"N, Longitude 70°50'12"W, was not addressed by the hydrographer. A multibeam and side scan sonar investigation disproved this feature. It is recommended that the feature be deleted.

3. A charted 13-ft depth, in Latitude 43°04'53.1"N, Longitude 70°44'54.39"W, and a 15-ft depth, in Latitude 43°04'51.0"N, Longitude 70°44'56.5"W, were not addressed by the hydrographer. The areas were developed using multibeam and side scan sonar. Present survey depths range from 16 to

27 feet. It is recommended that the area be charted as shown on present survey.

4. A charted 9-ft depth, in Latitude 43°04'17.3"N, Longitude 70°44'17.5"W, was not addressed by the hydrographer. This area was developed using multibeam and side scan sonar. Present survey depths range from 20 to 26 feet. It is recommended that the area be charted as shown on present survey.

5. A charted 13 foot shoal depth in Latitude 43°04'50.5"N, Longitude 70°43'09.0"W, was not addressed by the hydrographer. This area was developed using multibeam and side scan sonar. Present survey depths range from 17 to 23 feet. It is recommended that the area be charted as shown on present survey.

6. A charted 3-ft depth, in Latitude 43°06'32.5"N, Longitude 70°47'36.0"W, and a charted 11-ft depth, in Latitude 43°06'32.5"N, Longitude 70°47'37.5"W, were not addressed by the hydrographer. The areas were developed using multibeam and side scan sonar. Present survey depths range from 15 to 25 feet. It is recommended that the area be charted as shown on present survey.

7. The charted notes rky are considered verified by the present survey in the locations listed below. It is recommended that the notations be retained as charted:

<u>Latitude (N)</u>	<u>Longitude (W)</u>
43°03'41.6"	70°42'24.0"
43°04'02.0"	70°42'34.0"
43°04'25.7"	70°43'20.3"
43°04'40.7"	70°43'37.3"
43°04'48.5"	70°43'16.1"
43°04'27.5"	70°43'32.0"
43°04'24.8"	70°43'51.9"
43°07'02.5"	70°50'15.5"

8. During office processing it was determined that the following additional areas should be noted as rky:

<u>Latitude (N)</u>	<u>Longitude (W)</u>
43°07'08.5"	70°49'59.0"
43°07'09.0"	70°48'50.3"
43°06'59.0"	70°49'40.0"

43°06'22.5"	70°47'16.5"
43°06'05.0"	70°46'51.5"
43°04'02.0"	70°41'56.0"

9. The following charted depth notes for the Piscataqua River were updated to reflect the date and present survey depths:

<u>Charted Note</u>	<u>Revised to:</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
32 FEET APR 1998	35 FEET SEP 2001	43°04'55"	70°45'30"
31 FEET FOR A WIDTH OF 400 FEET APR 1998	32 FEET FOR A WIDTH OF 400 FEET SEP 2001	43°05'40"	70°46'19"
28 FEET FOR A WIDTH OF 400 FEET APR 1998 - NOV 2000	27 FEET FOR A WIDTH OF 400 FEET SEP 2001	43°06'18"	70°47'23"

10. The following depth notes, in the vicinity of Pier No. 2, chart 13283, were not addressed by the hydrographer:

<u>Charted Note</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
38 ft rep 1980	43°04'54"	70°44'47"
27 FT	43°04'51"	70°44'52"
33 FT	43°04'50"	70°44'51"
38 ft rep 1980	43°04'50"	70°44'46"
25 ft rep 1968	43°04'51"	70°44'37"

Northeast Navigation Manager, LCDR Andrew Beaver spoke with United States Navy Pilot, Ted Knowles regarding the depth notes. It is recommended that the notes and associated area limits, be deleted and present survey soundings charted. Email from LCDR Beaver relating to this conversation is attached to this report.

11. A charted note 35 ft rep 1999, in the vicinity of Latitude 43°05'05"N, Longitude 70°45'41"W, was not addressed by the hydrographer. It is recommended that the note be revised to 33 ft 2001.

ADDITIONAL RESULTS**Aids to Navigation**

An uncharted mooring buoy was located by the hydrographer in Latitude 43°06'18.16"N, Longitude 70°47'39.57"W. It is recommended that Marine Chart Division, Update Service Branch research this aid for its proper charting disposition.

ADEQUACY OF SURVEY

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area. No additional field work is recommended.

MISCELLANEOUS

Chart compilation was done by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. The following NOS charts were used for compilation of the present survey:

13283 18th Edition, Nov. 4/00 (updated through Sept. 2003)
13285 10th Edition, Nov. 4/00 (updated through Sept. 2003)

Robert Snow

Robert Snow
Cartographic Technician
Verification of Field Data
Evaluation and Analysis

REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H11014

Survey Title: State: New Hampshire
Locality: New England Coast
Sub-Locality: Portsmouth Harbor

Project Number: OPR-A910-WH

Survey Date(s): November 1, 2000 - November 8, 2000
September 23, 2001 - September 28, 2001

Features are reduced to Mean Lower Low Water using Predicted Water Levels and are positioned on NAD 83.

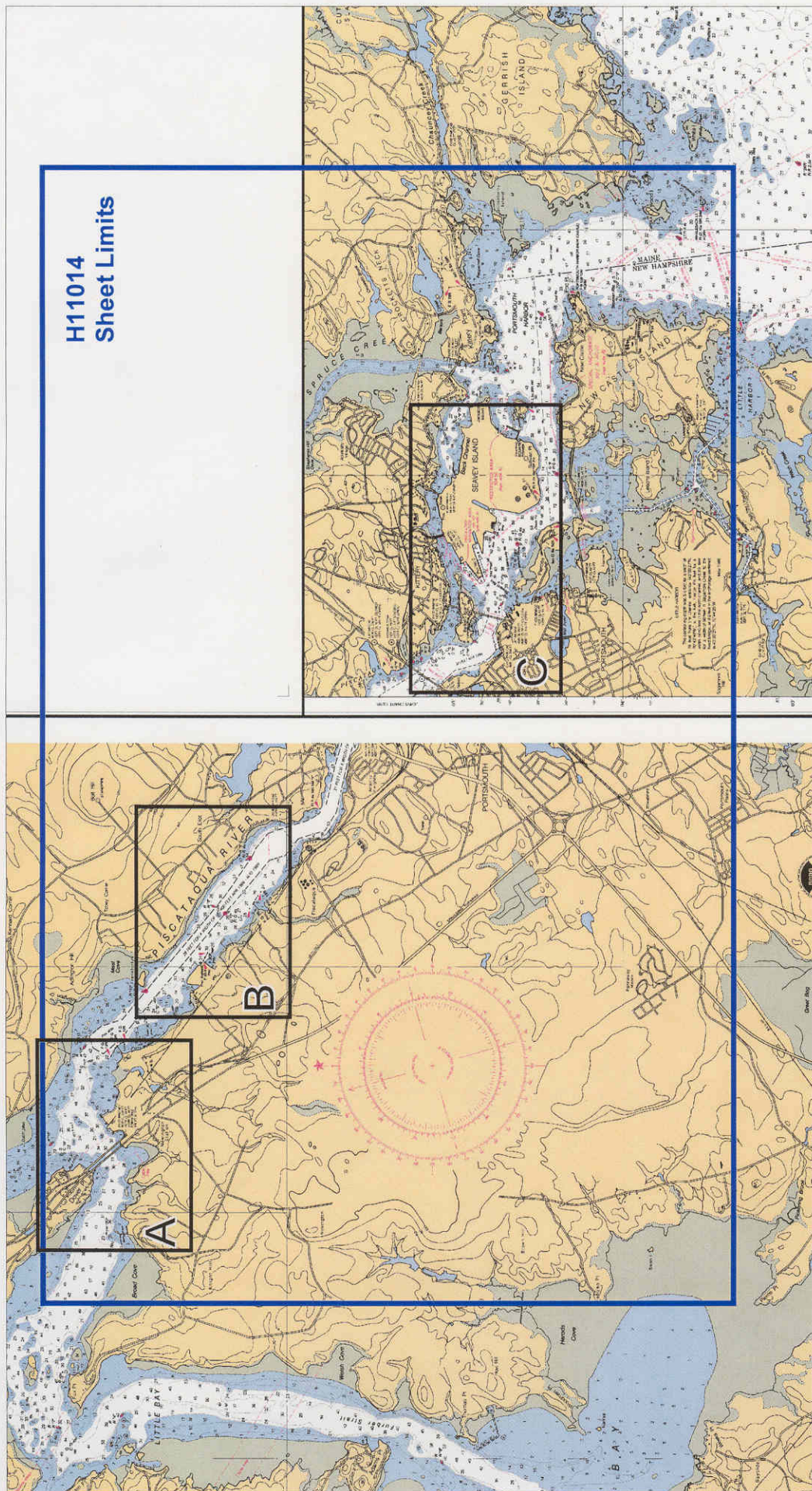
Charts affected: 13283, 18th edition, November 4, 2000, scale 1:20,000, NAD 83
13285, 10th edition, November 4, 2000, scale 1:20,000, NAD 83

The following table and chartlets outline dangers to navigation in Portsmouth Harbor. Particular attention should be paid to DTON #15 as this is near the C.H. Sprague and Son Co. Wharf, and DTON #20 as this is near the Navy's graving dock. Questions concerning this report should be directed to the Chief, Atlantic Hydrographic Branch at (757) 441-6746.

DANGERS TO NAVIGATION

DTON #	LEAST DEPTH (FEET)	LEAST DEPTH LATITUDE	LEAST DEPTH LONGITUDE	DESCRIPTION
2	19	43 07' 03.86" N	070 50' 01.90" W	Rock
9	16	43 07' 05.91" N	070 49' 22.76" W	Rock
15	18	43 06' 07.51" N	070 47' 19.27" W	Rock
20	30	43 04' 38.87" N	070 44' 20.18" W	Sounding

The above items have been applied to charts 13283 and 13285, updated through September 2003. See pages 21-22 of the Descriptive Report for revisions made during present office processing.



**H11014
Sheet Limits**

Chartlet 1 of 4 **13283, 18th edition, November 4, 2000, scale 1:20,000, NAD 83**
13285, 10th edition, November 4, 2000, scale 1:20,000, NAD 83

**This chartlet is up to date with the latest
Local Notice to Mariners information (June 23, 2001).
NOT FOR NAVIGATION.**

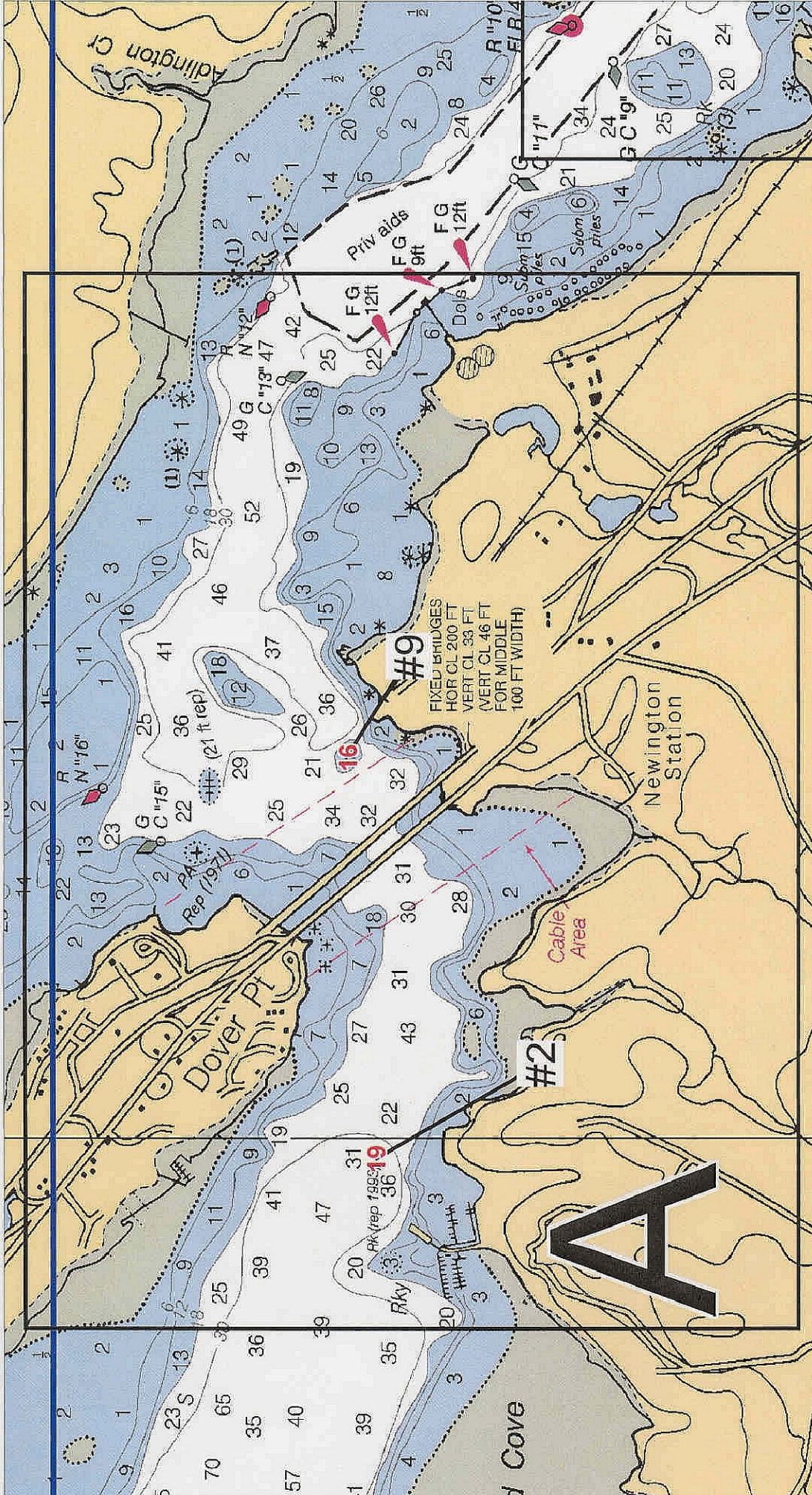


**NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE**

Project: OPR-A910-WH
Survey: H11014
State: New Hampshire
Locality: New England Coast
Sub-locality: Portsmouth Harbor
Survey Scale: 1:10,000

Sounding Units: Feet
Sounding Datum: MLLW
Horizontal Datum: NAD 83
Projection: UTM 19
Central Meridian: 069° 00 00
Scale Factor: 0.9996

NOAA Ship WHITING
CDR Steven R. Barnum
Commanding
NOV 1 to NOV 8, 2000
SEPT 23 to SEPT 28, 2001



Chartlet 2 of 4

13283, 18th edition, November 4, 2000, scale 1:20,000, NAD 83
 13285, 10th edition, November 4, 2000, scale 1:20,000, NAD 83

This chartlet is up to date with the latest
 Local Notice to Mariners information (June, 23 2001).
NOT FOR NAVIGATION.

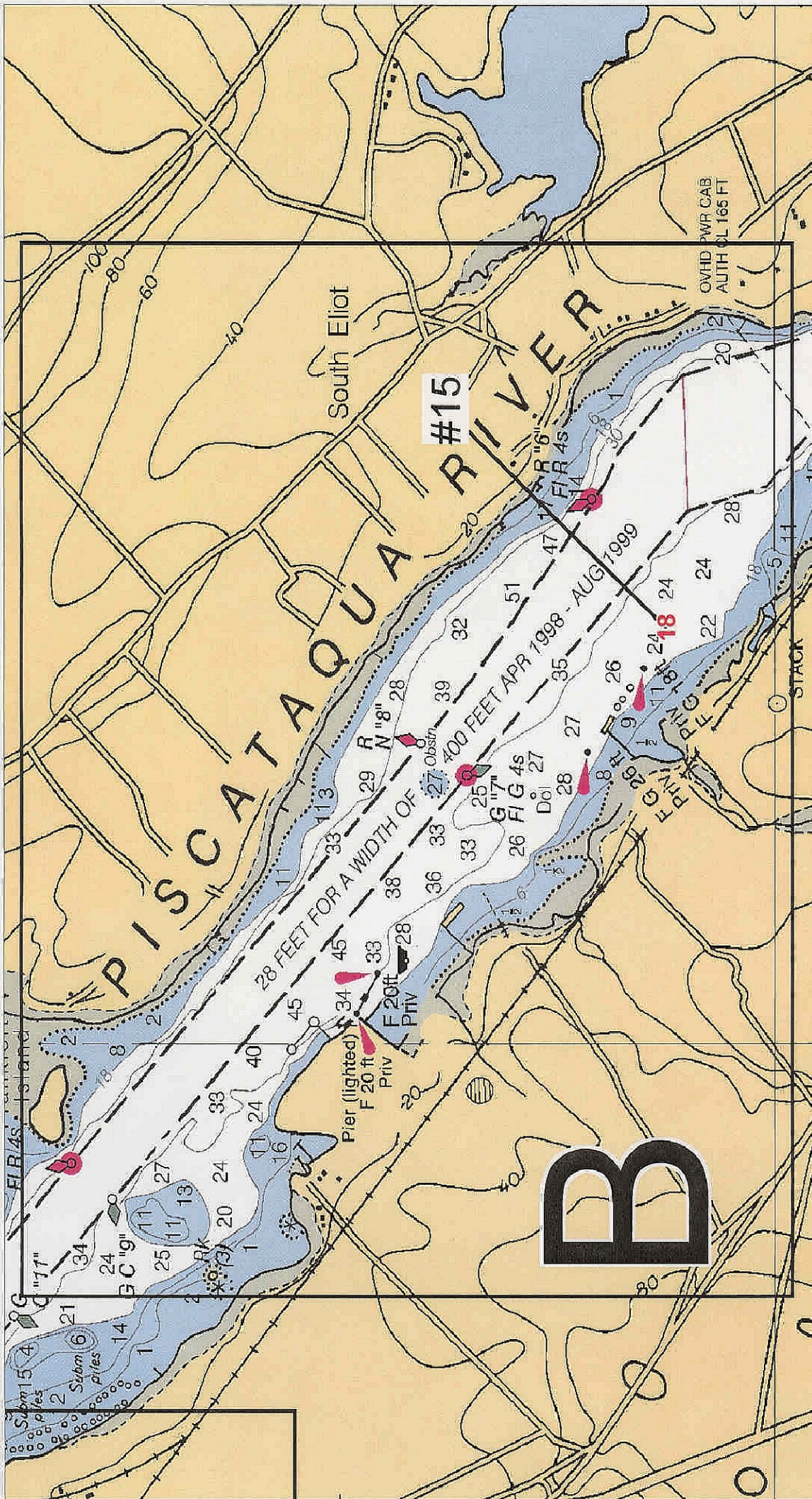


NATIONAL OCEANIC AND
 ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE

Project: OPR-A910-WH
 Survey: H11014
 State: New Hampshire
 Locality: New England Coast
 Sub-locality: Portsmouth Harbor
 Survey Scale: 1:10,000

Sounding Units: Feet
 Sounding Datum: MLLW
 Horizontal Datum: NAD 83
 Projection: UTM 19
 Central Meridian: 069° 00 00
 Scale Factor: 0.9996

NOAA Ship WHITING
CDR Steven R. Barnum
 Commanding
 NOV 1 to NOV 8, 2000
 SEPT 23 to SEPT 28, 2001



Chartlet 3 of 4

13283, 18th edition, November 4, 2000, scale 1:20,000, NAD 83
 13285, 10th edition, November 4, 2000, scale 1:20,000, NAD 83

This chartlet is up to date with the latest
 Local Notice to Mariners information (June 23, 2001)
NOT FOR NAVIGATION.

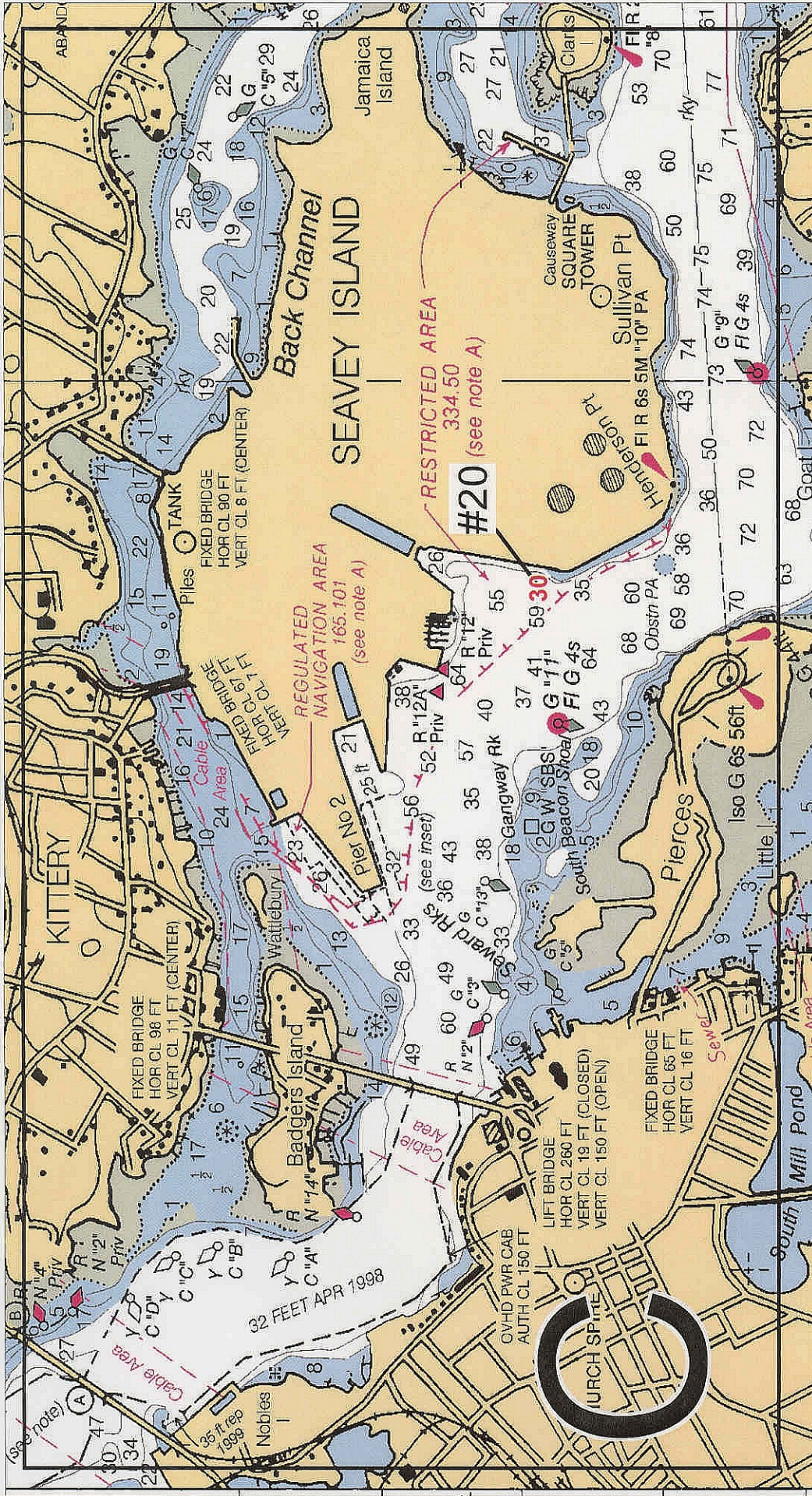


NATIONAL OCEANIC AND
 ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE

Project: OPR-A910-WH
 Survey: H11014
 State: New Hampshire
 Locality: New England Coast
 Sub-locality: Portsmouth Harbor
 Survey Scale: 1:10,000

Sounding Units: Feet
 Sounding Datum: MLLW
 Horizontal Datum: NAD 83
 Projection: UTM 19
 Central Meridian: 069° 00 00
 Scale Factor: 0.9996

NOAA Ship WHITING
 CDR Steven R. Barnum
 Commanding
 NOV 1 to NOV 8, 2000
 SEPT 23 to SEPT 28, 2001



Chartlet 4 of 4

13283, 18th edition, November 4, 2000, scale 1:20,000, NAD 83
 13285, 10th edition, November 4, 2000, scale 1:20,000, NAD 83

This chartlet is up to date with the latest
 Local Notice to Mariners information (June 23, 2001).
NOT FOR NAVIGATION.



NATIONAL OCEANIC AND
 ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE

Project: OPR-A910-WH
 Survey: H11014
 State: New Hampshire
 Locality: New England Coast
 Sub-locality: Portsmouth Harbor
 Survey Scale: 1:10,000

Sounding Units: Feet
 Sounding Datum: MLLW
 Horizontal Datum: NAD 83
 Projection: UTM 19
 Central Meridian: 069° 00 00
 Scale Factor: 0.9996

NOAA Ship WHITING
 CDR Steven R. Barnum
 Commanding
 NOV 1 to NOV 8, 2000
 SEPT 23 to SEPT 28, 2001

Subject: Re: chart 13283 (inset) depth notes

Date: Wed, 12 Nov 2003 13:29:06 -0500

From: "Andrew L Beaver" <Andrew.L.Beaver@noaa.gov> Internal

To: Emily B Christman <Emily.B.Christman@noaa.gov>

CC: Lyn Preston <Lyn.Preston@noaa.gov>, Maxine Fetterly <Maxine.Fetterly@noaa.gov>, Steven Barnum <steven.barnum@noaa.gov>, Gerd Glang <Gerd.Glang@noaa.gov>

Good afternoon Emily.

I talked to Captain Ted Knowles (207-438-1116) who is the US Navy Pilot who takes vessels to and from the facility there at Seavey Island, and he agreed that we should take those notes and blocked off areas off the chart and just put in the soundings you have found. I am forwarding him the graphics you sent me. Thanks for bringing this up, and for improving the chart!

Andy

Emily B Christman wrote:

> Andy - see policy/background below. I am looking at Portsmouth harbor,
> survey H11014, chart 13283, the Portsmouth Harbor inset, west end of
> Seavey Island by Pier No. 2. There are 5 notations in 5 blocked-off
> areas around the pier. For all but one, the survey found depths shoaler
> by a couple feet. I think the chart would be much improved if we just
> charted representative depths - it will allow a little more wiggle room
> for those who want it. Otherwise the notes are going to shoal up quite
> a bit.

> Most significant is the 25 ft rep 1968 area. There are already 3 depths
> charted within that area anyway. That note should definitely go and be
> replaced by soundings.

> I will ask Maxine to put together a screen grab so you can see what the
> compilation might look like and compare against what's currently on the
> chart. Please weigh in with any info you may be able to gather
> regarding locals' opinions/preferences re the value of retaining notes
> instead of charting soundings. MCD, is there any reason you know of to
> retain the notes?

> thanks

> ----- Original Message -----

> Subject: depth notations

> Resent-From: nos.ahb.allpersonnel@noaa.gov

> Date: Wed, 12 Feb 2003 09:52:21 -0500

> From: "Emily B Christman" <Emily.B.Christman@noaa.gov>

> To: nos.ahb.allpersonnel@noaa.gov

> After discussion with MCD and the nav manager for the Gulf, it's been
> decided that in the vicinity of the Houston Ship Channel where the chart
> shows a lot of blocked-off areas with no soundings but with notes such
> as "36 ft 2001", the customer would be better served if the chart
> portrayed representative soundings instead. (If you would like to see
> an example of the type of area in question please see AB or simply take
> a look at chart 11325. These areas are not tabulated channels, they are
> generally peripheral to the main channel.) So we will be compiling
> these areas accordingly.

> In the future, if anyone runs into a situation where there is a choice
> between updating a notation or showing representative soundings,
> especially if the single notation does not result in a particularly

- > accurate portrayal, please bring it to my attention. We do not have
- > carte blanche to make such changes everywhere. Each case will be looked
- > at individually with MCD and the nav manager. Keep this in mind and
- > bring it to me if you feel such a change would make for a better chart.
- >
- > thanks

Andrew Beaver <Andrew.L.Beaver@noaa.gov>

Navigation Manager, Northeast Region

Office of Coast Survey

Navigation Services Division

Subject: [Fwd: Re: charts 13283 and 13285 channel depths]

Date: Wed, 12 Nov 2003 11:58:27 -0500

From: "Emily B Christman" <Emily.B.Christman@noaa.gov>

To: Maxine Fetterly <Maxine.Fetterly@noaa.gov>, Robert G Roberson <Robert.G.Roberson@noaa.gov>

CC: Lyn Preston <Lyn.Preston@noaa.gov>

Given that this is a COE project, I am inclined to just update the depth notes with depth and year. Maintain status quo.

----- Original Message -----

Subject: Re: charts 13283 and 13285 channel depths

Date: Fri, 07 Nov 2003 15:30:40 -0500

From: "Andrew L Beaver" <Andrew.L.Beaver@noaa.gov>

Reply-To: Andrew.L.Beaver@noaa.gov

To: Emily B Christman <Emily.B.Christman@noaa.gov>

References: <3FA92680.5919A294@noaa.gov>

Afternoon Emily.

I have contacted the COE New England District, and they said that the channel from the US1 bridge to the turning basin is a COE project, hence no depths and a controlling depth. They also stated that we have provided them the controlling depths in the past when we have done survey ops there, so you may want to contact them:

Mr. Dan Bradley, 978-318-8315

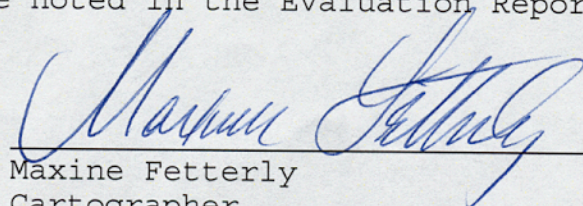
Andy

Emily B Christman wrote:

>
> *Up the Piscataqua River, beginning with the US1 bridge and continuing to the Adlington Hill area, the navigable channels are outlined and have depth notes rather than representative depths.*
>
> *These depth notes are not remotely close to reality. The three areas are notated as 32', 31', and 28' as you proceed up river. A few depths in each area approximate these notes - but most depths are 46-60'. Are these notes doing the marine community a service?*
>
> *I think it would be more accurate to do away with the notes and portray representative depths. Maybe we are doing a service by discouraging larger vessels from attempting tricky navigation... however, what people see on their fathos is not going to match what they see on their chart, by any stretch of the imagination.*
>
> *Comments? Recommendations?*
> *thanks*

APPROVAL SHEET
H11014

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof of charted data. All revisions and additions made to the smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.



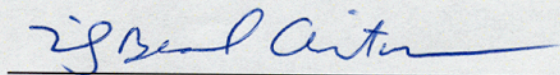
Maxine Fetterly
Cartographer,
Atlantic Hydrographic Branch

Date:

10/23/03

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Approved:



Emily B. Christman
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Date:

11/5/03

AWOIS/SURF ✓ 12/24/03, 351

